Author’s response to reviews

Title: Learning effects of different training models for border molding from the perspective of dental students

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Version: 1  Date: 27 Nov 2016

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BMC Oral Health

Dear Dr. Devoto:

Our manuscript "Learning effects of different training models for border molding from the perspective of dental students" (OHEA-D-16-00326) has been revised. Our point-by-point responses are below. I would like to thank you for considering our manuscript. Please feel free to contact me if you have any questions.

Sincerely,

Mai Okubo

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Response to editor's requests:

1) Please include a consent for publication statement because the figure include photos of people working in the lab (panels 4 and 5).

> The forms for consent for publication were obtained from the participants. The file is attached.

2) Please remove the cover letter that precedes the title page from your manuscript text.

> We have removed it as requested.

3) Please remove the tables and their legends from the main manuscript text and move to after the references.

> We have moved them after the references.

Response to reviewer reports:

> Reviewer #1: We were not provided with any comments from this reviewer.

Reviewer #2: My main suggestion to the author is to re-evaluate some of the assumptions in the introduction and discussion that suggests that impression accuracy or technique "greatly affects" the quality of the dentures and the level of patient satisfaction (which is based on studies made in 1925 and 1963). A recent published systematic review (J Oral Rehabil. 2016 Oct;43(10):771-7. The importance of a two-step impression procedure for complete denture fabrication: a systematic review of the literature) concluded that a two-step impression procedure may not be mandatory for the success of conventional complete denture fabrication regarding a variety of clinical aspects of denture quality and patients' perceptions of the treatment.

> We have revised the discussion, line 15, page 11.

As you mentioned, there are few papers showing the usefulness of two steps. After the review, one RCT was published that indicates the advantage of the 2-step method (Jo A, et al. A randomized controlled trial of the different impression methods for the complete denture fabrication: Patient reported outcomes. J Dent. 2015 Aug;43(8):989-96.). Additional research is expected in the future.
Reviewer #3:

Abstract

- The background of the abstract could be shortest and more direct.

>(Abstract section, line 4, page 2). We shortened the abstract appropriately.

- Please inform the number of students involved in the study. How did students were assigned to experimental groups?

>(Abstract, lines 6-9, page 2). All sixth-year students participated in the study, which was conducted over three consecutive years. The number of students changes every year, and all students were asked to answer the questionnaire. This is detailed in the Methods section. We have not included the number of students in the abstract because of the limitation on the length of the abstract. The information is available to the reader in the manuscript.

- Please provide the p values as well as details about exploratory factor analysis.

>(Abstract section, line 10-21, page 2-3). We added details of the analysis.

- Revise the conclusion according to the comments about results made below.

> We believe that the conclusion can remain in its original form, given the comments that follow.

Methods

- The allocation of subjects in experimental groups is not clear. Please provide more details.

>(Methods section, line 8-10, page 7). Again, all sixth-year students for three consecutive years were involved, with different models used each year. The allocation was done by class.

- Please provide the Figure 1 with high resolution (better quality).

>A high-resolution figure has been provided according to the guidelines.
Results

Please revise the results (Table 3) and the description of the results. I believe that the letters for "knowledge of border molding" are incorrect (To revise: plaster model B, silicone A, mannequin A). For content of practical training, the mannequin showed better result while no difference was found for plaster model and silicone strategies' training. No difference was found between approaches' training for "personal learning attitude" subscale (to add the letters in the Table).

I am sorry that there must have been some confusion regarding the table. As explained in Table 3, the letters indicate significant differences between the groups indicated by the same letters. For example, there are significant differences in knowledge of border molding between plaster and silicone models (a and a) and between plaster models and mannequins (b and b). I hope that this is now clearer.

Could the low response rate in the plaster model group influence the results?

The reviewer is quite correct in suggesting that the low response rate could have affected the results. This is discussed in the discussion section lines 6-11, page 12.

Conclusion

Based on the results presented in Table 3, the conclusion should be: "The replacement of plaster model by mannequin improved the knowledge and practical training of border molding.

As I mentioned before, there was a significant difference between plaster and silicone models, and between plaster models and mannequins in "knowledge of border molding" and in “content of practical training”. Between silicone models and mannequins, there was no significant difference.